Project Title: Biodiversity Conservation and Sustainable Management of two priority landscapes in the Ecuadorian Amazon Region

Date: 10/08/2020

Project Location and salient physical characteristics relevant to the safeguard analysis:

Project
Categorization
(A,B,C): B

The two proposed project landscapes: Putumayo – Aguarico and Palora - Pastaza include the two main Ecuadorian tributaries of the Amazon River (The Napo and Pastaza rivers). The two landscapes play a significant role connecting areas of high conservation value, acting as biological corridors, buffers for protected areas and providers of other globally important ecosystem services. Several indigenous nationalities live in both landscapes, and their practices, traditional knowledge and cultural beliefs have existed for centuries, providing an immense amount of knowledge about the tropical Amazon, with an important intrinsic cultural value.

The Putumayo - Aguarico Landscape

The Putumayo - Aguarico Landscape has an extension of 144,915 ha, and covers 2 provinces (Orellana and Sucumbíos), 4 cantons (Orellana, Shushufindi, Cuyabeno, and La Joya de los Sachas) and 9 parishes (San Roque, Limonchocha, Shushufindi, Pañacocha, Tarapoa, Aguas Negras, Aljeandro Labaka, El Edén, and Pompeya). It has a population of 10,993 people, of which 4,458 (41%) people are indigenous, including communities of the Shuar, Kichwa, Waorani, Secoya, and Siona indigenous nationalities. The landscape is integrated into the great wetland of the Ecuadorian Amazon with 78% of it covered by forests; mostly evergreen lowland forest of the Putumayo-Caquetá Aguarico (59.8%), followed in extension by the Palm-flooded forest of the Amazon floodplain (13.1%). The biomass in the landscape stores approximately 18.7 Mton of carbon, equivalent to 132 TonC/ha, representing higher carbon storage than the average in the Ecuadorian Amazon (123 TonC/ha).

The landscape connects three important protected areas (APs) of the Ecuadorian National Protected Areas System (SNAP): the Limoncocha Biological Reserve, the Cuyabeno Fauna Production Reserve and the Yasuní National Park, which together cover about 58.5% of the landscape area. Other conservation schemes are also present in the landscape with 14.6% declared as Protected Forest and Vegetation; 20.8% conserved under the Socio Bosque Program (PSB), 14.59% declared as RAMSAR site and 3.31% recognized as Important Bird and Biodiversity Areas (IBAs).

This area plays a key water flow regulation function in the Napo River basin, and is known as one of the main routes for bird migration and transit of large animals. As many as 12 species of fauna with some level of threat, on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species are present in this area. Among these are the Amazonian manatee (*Trichechus inunguis*)(VU), giant otters (*Pteronura brasiliensis*)(EN) and river dolphins (*Inia geoffrensis* and *Sotalia fluviatilis*)(EN) that inhabit the aquatic ecosystems of the seasonal flooded forests of the landscape. Threatened mammals like the jaguar (*Panthera onca*) (NT) and the lowland amazonian tapir (*Tapirus terrestris*)(VU), that need vast and connected forest areas to maintain viable populations, are also found in this landscape.

Currently, 24% of the land use in the Putumayo - Aguarico landscape corresponds to an agricultural mosaic in which grasslands (5%) and crops (11%) predominate. The most frequent

crops are African oil palm, cocoa, coffee and banana. Grassland and cocoa and coffee farms present an important opportunity to improve the conditions to provide ecosystem services through increasing forest biomass with native species (eg. through living fences and agro-silvo-pastoral systems). Complementarily, some small bioeconomy initiatives, implemented mainly by indigenous communities, can be found in this landscape; although they are incipient, they represent an opportunity for sustainable forest management. These are: freshwater fish like tilapia, paiche (arapaima gigas) and cachama (piaractus brachypomus); citronella; guayusa (ilex guayusa); ungurahua (oenocarpus bataua); turmeric, ishpingo (amazon cinnamon); morete (mauritia flexuosa); sacha inchi (amazon peanut); and community nature-based tourism.

All these characteristics make the Putumayo-Aguarico an important landscape for maintaining and restoring connectivity in order to guarantee the continuity of ecosystems, organisms' mobility, as well as energy flows and functional processes such as genetic exchange or species exchange. Consequently, this area was identified in 2013 by the Ministry of Environment and Water (MAAE) as a priority area for the establishment of a connectivity corridor.

The Palora - Pastaza Landscape

The Palora - Pastaza landscape comprises 2 provinces (Pastaza and Morona Santiago), 4 cantons (Pastaza, Palora, Huamboya and Pablo Sexto) and 6 parishes (Simón Bolivar, Sarayacu, Arapicos, 16 de Agosto, Huamboya, and Pablos Sexto), and covers an area of 178,129 ha, most of which is covered by forests (86% of the landscape), followed by grasslands with 9% of the territory, and just 0.4% of land dedicated to crops: cassava, sugar cane, banana, and the most recent and expanding is pitahaya. As in the Putumayo-Aguarico landscape, some incipient bioeconomy initiatives can be found in this landscape based on the use of ungurahua (*oenocarpus bataua*), morete (*mauritia flexuosa*), cachama (*piaractus brachypomus*), vanilla, sacha inchi (amazon peanut), ginger and community nature-based tourism; they are implemented mainly by indigenous communities. The population inside the landscape is 10,137, of whom 7,737 (76%) belong to the indigenous Shuar, Achuar and Kichwa nationalities.

The Palora – Pastaza Landscape plays a significant role in regulating the water flows that descend from the Andes and tribute to the Pastaza River. The landscape is also home to mainland forests, located in the foothills of the Andes, characterized by their high biodiversity and endemism levels. The most representative ecosystems are the Piemontano evergreen forest in the north of the eastern Andes mountain range (37%), the evergreen lowland forest of the Tiger-Pastaza (23%), flooded forest of the Amazon floodplain (10%), and the piedmont evergreen forest of the Condor-Kutukú mountain range (9%). Carbon storage in biomass in this landscape is approximately 21.4 Mton of carbon, equivalent to 121 TonC/ha.

Approximately 15% of the landscape is designated under national conservation categories (1.4% Protected Forests and Vegetation and 14% PSB), while 23% of the landscape area has international recognition of importance for the conservation of birds (Important Bird Areas, IBAs). Also, the landscape is part of the habitat of at least 17 species of fauna with some level of threat according to the IUCN Red list.

The spatial patterns of the recent deforestation areas (2014-2016) show a process of severe disconnection between the Amazon and the Andes. The high concentration of deforestation in the piedmont forests along the main access roads (i.e. Troncal Amazónica E45, Troncal Amazónica Alterna E45A, E10, E40, E451) has accentuated fragmentation in the Southern Amazon, particularly in the Kutukú mountain range where the Palora-Pastaza landscape is found. This generates a functional dismemberment of these areas with respect to the alluvial plain. Restoring connectivity between these areas is probably one of the main actions that will contribute to

preserving the ecosystem integrity of the Amazon basin. Due to its strategic geographical location and its relatively high native forests cover, this landscape plays a key role as an ecological corridor between the Sangay National Park, several Protected Forest and Vegetation areas, and community forests under the PSB.

Project Description:

The project "Conservation of Biodiversity and Sustainable Management of two priority landscapes in the Ecuadorian Amazon region" aims to promote the conservation of biodiversity, favor ecological connectivity, and promote sustainable economic productive activities, with an integrated landscape management approach. This objective is intended to be achieved, throughout the 4 years of project execution, through the implementation of 4 interrelated components:

Component 1: Conservation of biodiversity under a sustainable landscape management approach This component seeks to increase the conservation areas by establishing a connectivity corridor in each intervention landscape, implementing participatory methodologies and prioritizing the corridors based on geospatial, socioeconomic, cultural, ecological and political criteria.

Component 2: Sustainable economic activities for the management of productive landscapes

Component 2 of the project seeks to link sustainable production with the conservation of native forests in the prioritized corridors. This will be achieved by linking farm-level planning, improving traditional agricultural practices, and implementing non-timber forest product bio-enterprises.

Component 3: Enabling conditions for connectivity and integrated landscape management This component seeks to establish the enabling conditions for the management of the corridors through three strategies: 1. develop normative, public policy, technical or administrative instruments that contribute to the connectivity or integrated management of sustainable landscapes; 2. strengthening the capacities of key actors for the management of the corridors; and 3. establish inter-institutional, inter-sector and multi-level governance platforms that allow participatory management of the corridors.

Component 4: Monitoring and Evaluation, Knowledge Management and Regional Coordination
Component 4 focuses on developing and implementing a monitoring and evaluation plan that allows effective
and efficient project management, providing information so that the right decisions can be made in an adaptive
project management. Likewise, it seeks to promote spaces for dialogue and exchange of experiences at the
national and regional level to leverage knowledge of successful strategies and lessons learned from initiatives.
Finally, it is linked to the first three components, aiming at a timely communication throughout the project, of
key information on the actions and impact of the project.

In addition to the safeguards standards triggered below, the following four safeguards standards apply to all WWF projects:

- Environmental and Social Risk Management
- Public Consultation and Disclosure
- Stakeholder Engagement

• Accountability and Grievance Mechanism

Safeguard Standards Triggered	Yes	No
Natural Habitats	X	
Pest Management		X
Indigenous Peoples	X	
Involuntary Resettlement	X	
Cultural Resources		X
Community Health and Safety		X

Summary of Key Safeguard Issues:

The proposed project has been screened according to the Standard on Environmental and Social Risk Management and has been categorized as a Category "B" project, given that it is essentially a conservation initiative expected to generate significant positive and durable social, economic and environmental benefits. Any adverse environmental and social impacts are site specific and can be mitigated. Since the exact location and/or nature of potential investments have not yet been determined, an Environmental and Social Management Framework (including an IPPF and PF) will be prepared to conform to WWF's Environment and Social Safeguards Framework.

Standard on Natural Habitat: Overall, activities of the project will produce significant conservation benefits and any potential adverse environmental impacts on human populations or environmentally important areas are expected to be very limited. While there shall be no conversion or degradation of natural habitats, this Standard has been triggered as a precaution since there will be site-specific activities relating to productive landscapes under Component 2.

Standard on Involuntary Resettlement: There will be no land acquisition or involuntary resettlement of individuals and/or families under the proposed project. While the proposed project will not cause displacement of people from their homes, the Standard is triggered because designating connectivity corridors may restrict or prohibit the extraction of resources in certain areas of the corridors, thereby restricting access to resources required for the subsistence and cultural maintenance of the affected populations. A Process Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Standard on Indigenous People: This Standard is triggered because indigenous people are found in both project landscapes. The indigenous communities of the Putumayo - Aguarico Landscape include Shuar, Kichwa, Waorani, Secoya, and Siona indigenous nationalities. The indigenous communities of the Palora – Pastaza Landscape include Shuar, Achuar and Kichwa nationalities. As the specific activities and locations of said activities are not yet defined, an Indigenous Peoples Planning Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Standard on Pest Management: The activities are not expected to trigger the Standard on Pest Management. While the project might support native plant nurseries (under Component 2), it will not support the procurement or use of pesticides or other agricultural chemicals, or lead to the increased use of such chemicals. The ESMF will include guidance to this effect.

Standard on Cultural Resources: This Standard is not triggered as the project is highly unlikely to have an impact on cultural resources.

Standard on Community Health, Safety and Security: This Standard is not triggered as the project is highly unlikely to have an impact on community health, safety, and security.

Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project expects to achieve improved conservation and sustainable use of natural resources as its long-term impact of project interventions, which will be both environmentally and socially positive.

Required actions: (type of ESIA, ESMP, IPP, IPMP, RAP, consultations, disclosure)

An Environmental and Social Management Framework, including an Indigenous Peoples Planning Framework and a Process Framework, will be prepared before project concept finalization.

A Stakeholder Engagement Plan will be prepared during ProDoc development stage.

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